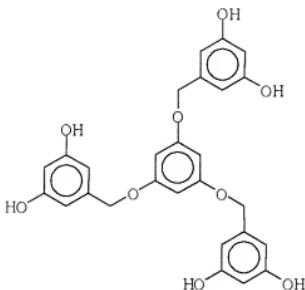


IN THE CLAIMS

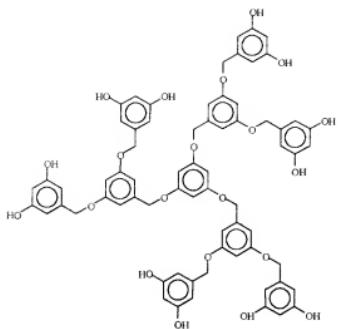
1. (Previously Presented) A non-linear optical material, comprising:
organic chromophores coupled with the ends of a polymer having a dendrimer structure
based on ester linkages and/or ether linkages, the dendrimer structure having symmetry along
three dimensions, wherein the polymer couples to said chromophore at a pendant OH group
forming an ester or ether linkage; and

the polymer having a dendrimer structure is any one selected from the group consisting of
polymers illustrated as Formulas 21, 23, 28, 6, 12, 16, 29, 8, 14, 18, 30, 25, 27 and 31:

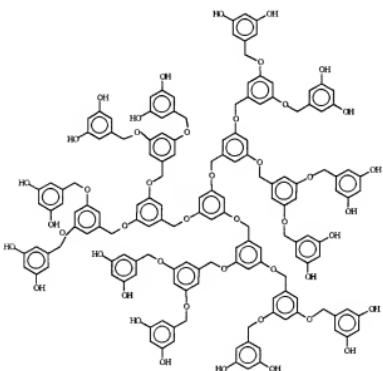
Formula 21



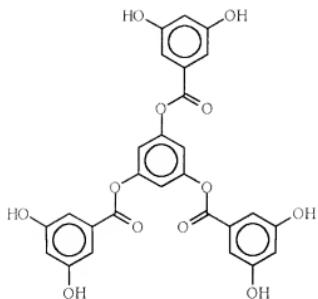
Formula 23



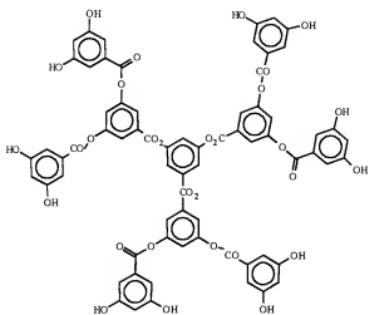
Formula 28



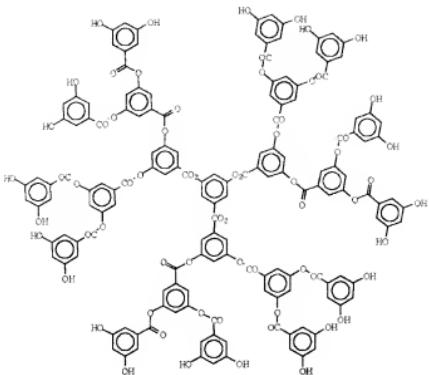
Formula 6



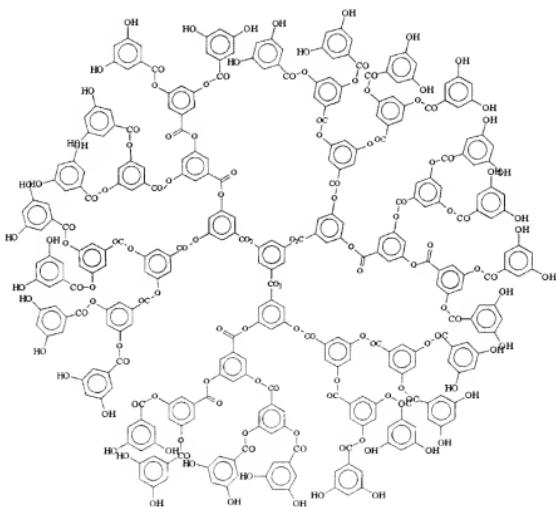
Formula 12



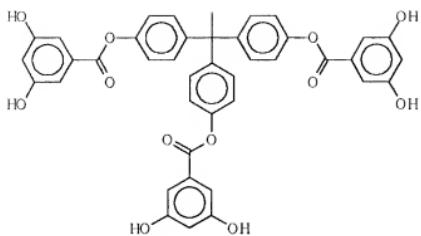
Formula 16



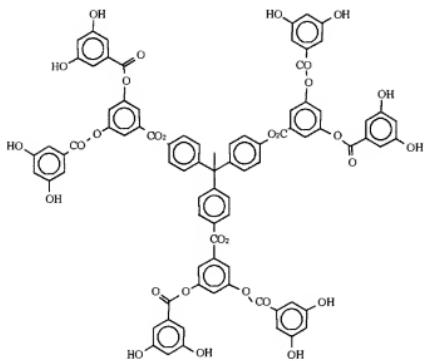
Formula 29



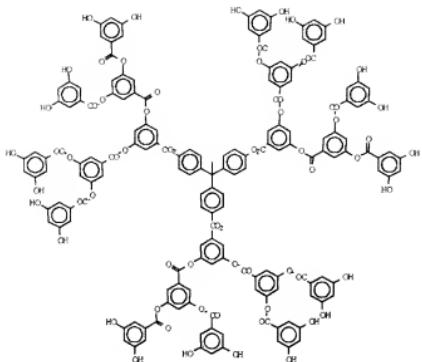
Formula 8



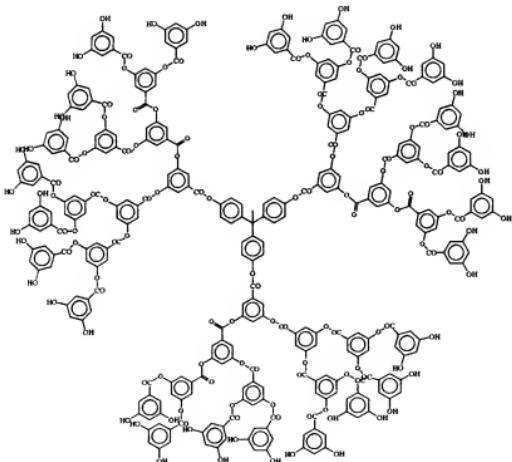
Formula 14



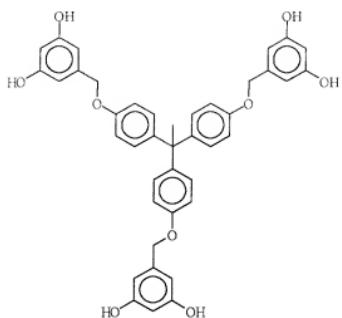
Formula 18



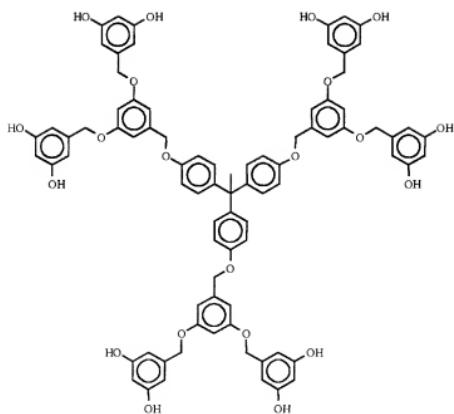
Formula 30



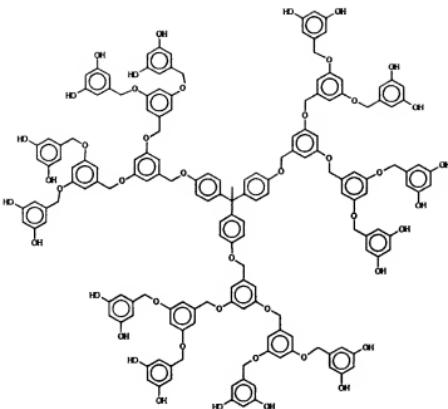
Formula 25



Formula 27



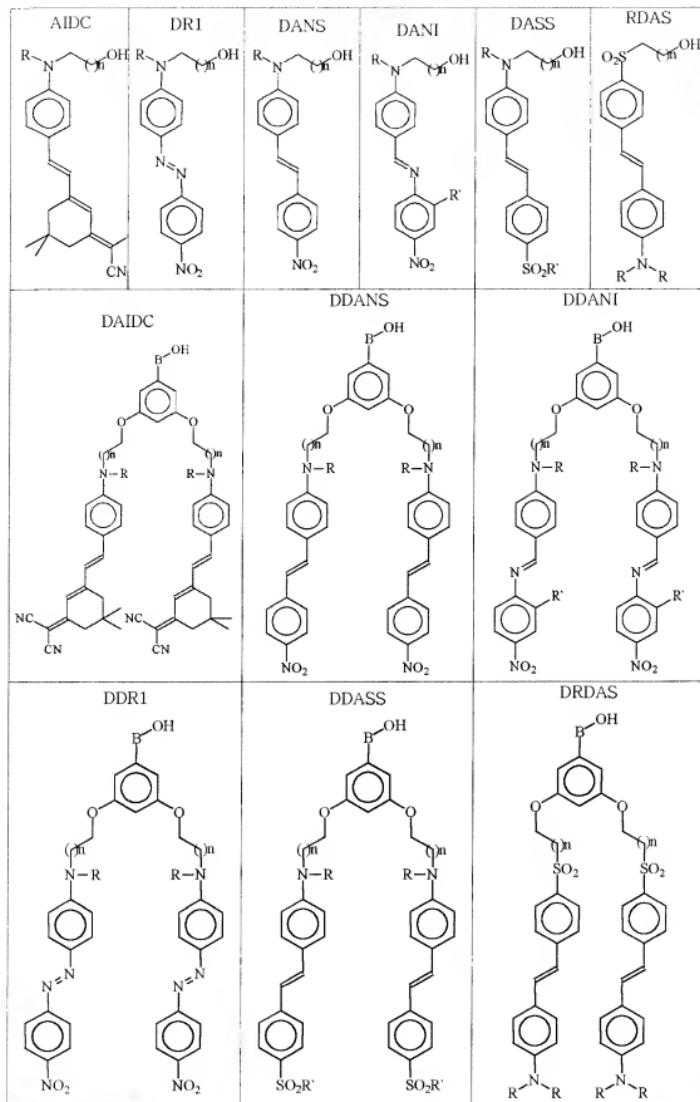
Formula 31



2. (Cancelled)

3. (Previously Presented) The non-linear optical material as recited in claim 1, wherein the chromophore couples to said polymer at the pendant OH group forming an ester or ether linkage; and

wherein the organic chromophores are any one selected from the group consisting of the following organic chromophores AIDC, DR1, DANS, DANI, DASS, RDAS, DAIDC, DDANS, DDANI, DDR1, DDASS, DRDAS illustrated as shown:



wherein the R and R' are H, a phenyl group or an alkyl group having 1 to 6 carbon atoms; n is an integer in a range of 1 to 11;

B is an alkyl group having 1 to 6 carbon atoms or a COOA where A is an alkyl group having 1 to 6 carbon atoms.

4. (Previously Presented) The non-linear optical material as recited in claim 1, wherein some of the ends of the polymer having a dendrimer structure is coupled with non-chromophores.

5. (Original) The non-linear optical material as recited in claim 4, wherein the non-chromophores are aliphatic hydrocarbons or aromatic hydrocarbons which have 1 to 16 carbon atoms.

6. (Original) The non-linear optical material as recited in claim 5, wherein the aromatic hydrocarbons have chemical functional groups connected thereto, the chemical functional groups inducing thermal and optical chemical reactions.